

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.
 Filing Date Filed Concurrently Herewith
 Inventorship Criminisi et al.
 Applicant Microsoft Corporation
 Attorney's Docket No. MS1-1938US
 Title: Virtual Image Artifact Detection

INFORMATION DISCLOSURE STATEMENT

References -- See Attached Form PTO-1449

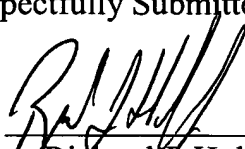
REMARKS

With regard to the above-identified application, the documents listed on the enclosed Form 1449 are brought to the attention of the Examiner. A copy of each document listed on the enclosed Form 1449 is provided. Consideration of the listed documents is respectfully requested. Additionally, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

No representation is made that any of the documents listed in the enclosed Form 1449 constitute prior art or are in any way material to the subject matter of the above-identified application

Respectfully Submitted,

Date: 4-16-04

By: 
 Richard J. Holzer, Jr.
 Reg. No. 42,668

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		First Named Inventor	Criminisi		
		Group Art Unit			
		Examiner Name			
Sheet	3	of	7	Attorney Docket Number	MS1-1938US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		BASU, Sumit, ESSA, Irfan, PENTLAND, Alex; "Motion Regularization for Model-Based Head Tracking." In Proceedings of International Conference on Pattern Recognition, Wien, Austria, 1996 IEEE, pp. 611-616.	
		BELHUMEUR, Peter N.; MUMFORD, David "A Bayesian Treatment of the Stereo Correspondence Problem Using Half-Occluded Regions" IEEE Conference on Computer Vision and Pattern Recognition, 1992, 8pgs	
		BLACK, Michael J., YACOOB, Yaser; "Tracking and Recognizing Rigid and Non-Rigid Facial Motions Using Local Parametric Models of Image Motion"; IEEE Proceedings of International Conference on Computer Vision, Cambridge, MA, 1995, pgs 374-381	
		BOBICK, Aaron F., INTILLE, Stephen S.; "Large Occlusion Stereo"; HCV 1999, pgs 1-25	
		CHEN, Shenchang Eric, WILLIAMS, Lance; "View Interpolation for Image Synthesis"; SIGGRAPH, 1993, pgs. 1-7	
		CHOI, Chang Seok, AIZAWA, Kiyoharu, HARASHIMA, Hiroshi, TAKEBE, Tsuyoshi; "Analysis and Synthesis of Facial Image Sequences in Model-Based Image Coding" IEEE Transaction on Circuits and Systems for Video Technology v. 4, n 3 June 1994, pgs 257-275	
		COX, Ingemar J., HINGORANI, Sunita L., RAO, Satish B., MAGGS, Bruce M.; "A Maximum Likelihood Stereo Algorithm" Computer vision and Image Understanding, May 1996, pgs 542-567 (1-47)	
		DARRELL, Trevor, BABACK, Moghaddam, PENTLAND, Alex P.; "Active Face Tracking and Pose Estimation in an Interactive Room" IEEE Computer Vision and Pattern Recognition, 1996, pgs 67-72 (1-16)	
		DeCARLO, Douglas, METAXES, Dimitris; "Optical Flow Constraints on Deformable Models with Applications to Face Tracking" International Journal of computer Vision, 2000, pgs 99-127 (1-42)	
		GEMMELL, Jim, TOYAMA, Kentaro, ZITNICK, C. Lawrence, KANG, Thomas, SEITZ, Steven; "Gaze Awareness for Video-Conferencing: A Software Approach" Oct - Dec, 2000, pgs 26-35	
		HORPRASERT, Thanarat, YACOOB, Yaser, DAVIS, Larry S.; "Computing 3-D Head Orientation From a Monocular Image Sequence"; Interantional Conference Automatic Face and Gesture Recognition, 1996, pgs 242-247	

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		ISHIKAWA, Hiroshi, GEIGER, Davi; "Occlusions, Discontinuities, and Epipolar Lines in Stereo" The Fifth European Conference on Computer Vision (ECCV '98) June 1998, Germany pgs 1-14	
		KOLMOGOROV, Vladimir, ZABIH, Ramin; "Multi-Camera Scene Reconstruction via Graph Cuts"; Proc. Europ. Conf. Computer Vision, Copenhagen, Denmark, May 2002, pgs 1-16	
		LI, Haibo, ROIVAINEN, Pertti, FORCHHEIMER, Robert; "3-D Motion Estimation in Model-Based Facial Image Coding" IEEE Transactions on Pattern Analysis and Machine Intelligence, v. 15, n 6, June 1993, pgs 545-555	
		LIU, Zicheng, ZHANG, Zhengyou, JACOBS, Chuck, COHEN, Michael; "Rapid Modeling of Animated Faces from Video" Proceedings of the Fourth IEEE International Conference on Automatic Face and Gesture Recognition Feb 2000, pgs 58-67	
		LOOP, Charles, ZHANG, Zhengyou; "Computing Rectifying Homographies for Stereo Vision" Technical Report MSR-TR-99-21, 14 pgs	
		LU, Le, ZHANG, Zhengyou, SHUM, Heung-Yeung, LIU, Zicheng, CHEN, Hong; "Model and Exemplar-Based Robust Head Pose Tracking Under Occlusion and Varying Expression" IEEE Computer Soc. Conf. on Computer Vision & Pattern Recog., Dec. 2001, Hawaii, USA, pgs 1-8	
		NEWMAN, Rhys, MATSUMOTO, Yoshio, ROUGEAX, Sebastien, ZELINSKY, Alexander; "Real-Time Stereo Tracking for Head Pose and Gaze Estimation" IEEE 2000 pgs 122-128	
		OHTA, Yuichi, KANADE, Takeo; "Stereo by Intra-and Inter-Scanline Search Using Dynamic Programming" IEEE 1985, 16 pgs	
		ROY, Sebastien, COX, Ingemar J.; "A Maximum-Flow Formulation of the N-Camera Stereo Correspondence Problem" IEEE Proc. of Int. Conference on Computer Vision, Bombai, January 1998, pgs 492-499	
		SCHARSTEIN, Daniel, SZELISKI, Richard, ZABIH, Ramin; "A Taxonomy and Evaluation of Dense Two-Frame Stereo Correspondence Algorithms"; International Journal of Computer Vision, 2002, 10pgs	
		SCHARSTEIN, Daniel, "Stereo Vision for View Synthesis" IEEE Computer Society Conference on Computer Vision and Pattern Recognition, San Francisco, CA, June 1996 pgs 852-858	

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		SHI, Jianbo, TOMASI, Carlo; "Good Features to Track"; IEEE Conference on Computer Vision and Pattern Recognition, Seattle WA, June 1994, 7pgs	
		SUN, Jian, SHUM, Heung-Yeung, ZHENG, Nan-Ning; "Stereo Matching Using Belief Propagation" ECCV 2002, pgs 510-524	
		SZELISKI, Richard; "Prediction Error as a Quality Metric for Motion and Stereo" Vision Technology Group Microsoft Research, Proceeding of the International Conference on Computer Vision, Vol 2, Corfu, Greece, 1999, 8pgs	
		VETTER, Thomas "Synthesis of Novel Views From a Single Face Image" Max-Planck-Institut, Germany, Technical Report No. 26, Feb. 1996, pgs 1-13	
		YANG, Ruigang, ZHANG, Zhengyou; "Eye Gaze Correction with Stereovision for Video-Teleconferencing" Proceedings from the European Conference of Computer Vision, Vol 2, Copenhagen, Denmark May 2002, pgs 479-494	
		ZHANG, Zhengyou, LIU, Zicheng, ADLER, Dennis, COHEN, Michael F., HANSON, Erik, SHAN, Ying; "Robust and Rapid Generation of Animated Faces from Video Images: A Model-Based Modeling Approach" Technical Report MSR-TR-2001-101 pgs 1-30	
		BIRCHFIELD, S. TOMASI, C.; "A Pixel Dissimilarity Measure that is insensitive to Image Sampling" IEEE Transactions on Pattern Analysis and Machine Intelligence 4(20) pgs 40-406, March 1998	
		BROADHURST, A. & CIPOLLA, R.; "A statistical Consistency Check for the Space Carving Algorithm" In Proceedings of ICCV 2001, 10 pages	
		CHUANG, Y.-Y., CURLESS, B., SALESIN, D. H., SZELISKI, R.; "A Bayesian Approach to Digital Matting" in Proceedings of CVPR 2001, 8 pages	
		CRIMINISI, A., PEREZ, P., TOYAMA, K.; "Object Removal by Exemplar-Based Inpainting" In Proceedings of CVPR, Madison, WI June 2003, 8 pages	
		CRIMINISI, A., SHOTTON, J., BLAKE, A., TORR, P.H.S.; "Gaze Manipulation for One-to-One Teleconferencing" In Proceedings of ICCV, Nice, Oct. 2003, 8 pages	

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		EFROS, A. A., LEUNG, T. K.; "Texture Synthesis by non-parametric Sampling" In Proceedings of ICCV, Sept. 1999, pgs 1039-1046	
		FITZGIBBON, A., WEXLER, Y., ZISSERMAN, A.; "Image-based rendering Using Image-based priors" in Proceedings of ICCV, Nice, Oct. 2003, 8 pages	
		HARRISON, P.; "A Non-Hierarchical Procedure for Re-Synthesis of Complex Textures"-in Proceedings of the International Conference Central Europe Computer Graphics, Vis. and Comp. Vision, Plzen, Czech Republic, Feb. 2001, 16 pgs	
		HERTZMANN, A., JACOBS, C. E., OLIVER, N., CURLESS, B., SALESIN, D. H.; "Image Analogies" in Proceedings of ACM SIGGRAPH, 2001, 14 pages	
		HIRSCHMULLER, H.; "Improvements in Real-Time Correlation-Based Stereo Vision" Proceedings of IEEE Workshop on Stereo and Multi-Baseline Vision, Hawaii, Dec. 2001 pgs 141-148	
		KOCH, R.; "3-D Surface Reconstruction from Stereoscopic Image Sequences" in Proceedings of ICCV 1995, pgs. 109-114	
		KOLMOGOROV, V., ZABIH, R.; "Computing Visual Correspondence with Occlusions using Graph Cuts" in Proceedings of ICCV 2001 pgs 508-515	
		KUTULAKOS, K. N., SEITZ, S. M.; "A Theory of Shape by Space Carving" Technical Report CSTR 692, University of Rochester, 1998, 19 pages	
		SCHARSTEIN, D.; "View Synthesis Using Stereo Vision" Cornell University Dissertation Jan. 1997, 196 pages	
		SZELISKI, R., GOLLAND, P.; "Stereo Matching with Transparency and Matting" IJCV 1998, 17 pages	
		WEXLER, Y., FITZGIBBON, A., ZISSERMAN, A.; "Bayesian Estimation of Layers from Multiple Images" in Proceedings of ECCV, Copenhagen 2002, 15 pages	

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